

Stage 2 Feasibility

F2 Scope of Works

Provider Name	[Complete]
Site/Asset/Project Name	[Complete]
Submission Date	[Complete]

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1.1 Introduction

Purpose of the F2 Scope

Prior to commencement of an F2 Study and associated F2 Report, a scope of works for delivering the report (including costs and programme) must be written by the potential provider, and approved by NGESO. The purpose of the F2 Scope is to agree areas of focus for the F2 Study tailored to the needs at potential provider's site, to ensure completeness of the study, and to facilitate the contractual release of requested funds.

Approach for agreeing the F2 Scope

On a case-by-case basis all scopes for F2 studies will need to be discussed and agreed individually between NGESO and the potential BS Service Provider, due to the differing characteristics of the potential BS Service Providers' equipment/plant.

Nonetheless, on submission of each F2 Report, NGESO requires sufficient information to technically and commercially evaluate the proposed offer for a Black Start service.

Instructions

Each of the tables below include the requirements for each section of the F2 Report. Please use the empty 'Provider Response' cells to explain how you plan to undertake each section of the F2 Report.

1.2 Technical Capability

1.2.1 Confirmation of Capability – BS Service

Requirement	The full F2 Report submitted by the tenderer shall confirm (backed up with physical, simulated and/or written evidence) the BS capability of the equipment/Plant.
Contents	<ul style="list-style-type: none">- Confirmation of Capability – OEM Report (further details under 1.2.2);- Confirmation of capability of the (overall) BS Service:<ul style="list-style-type: none">i. BS capability, operation and control of the equipment/Plant;ii. Start-up power requirements and related profile, with any peak requirements;iii. Time to Connect (if variable, e.g. warmth state, detail accordingly);iv. Start-up sequence in BS mode (if variable, e.g. warmth state, detail accordingly);v. Resilience of supply – BS Service (≥ 10h at contracted output);vi. Ability of the equipment/Plant to meet the $\geq 90\%$ availability requirement.
Provider Response	

1.2.2 Confirmation of Capability – OEM Report

Requirement	Dedicated report developed/issued by the relevant OEM confirming BS capability of the equipment/Plant (backed up with physical or simulated evidence).
Contents	<p>Report developed/issued by the OEM including and detailing, as a minimum:</p> <ul style="list-style-type: none">- Confirmation of BS Capability, Operation and Control of the relevant OEM's equipment;- Where applicable (*):<ul style="list-style-type: none">i. Start-up power requirements and related profile, with any peak requirements;ii. Time to Connect and start-up sequence in BS mode (if variable, e.g. warmth state, detail accordingly);iii. Energisation:<ul style="list-style-type: none">- Reactive capability at various load points, including initial energisation;- Any constraints around the energisation stage, namely the ability to withstand at (MVar>0 lead, MW=0 export);iv. Block Loading:<ul style="list-style-type: none">- Profile, full range: size of blocks, number of blocks, time(s) between blocks, any hold points/constraints;- Requirements to achieve the Minimum Stable Operating Level;- Any variation(s) due to equipment status, output level or energy/fuel supplies;v. Any differences between modules;- Reference list for similar main equipment/Plant undertaking BS provision. <p>(*) OEM's equipment.</p>
Provider Response	

1.2.3 Confirmation of Capability – BS Auxiliary Unit(s)

Requirement	The full F2 Report submitted by the tenderer shall confirm (backed up with physical, simulated and/or written evidence) the BS capability of the BS Auxiliary Unit(s).
Contents	<ul style="list-style-type: none">- Capability to start without external supplies and provide sufficient power output to enable the delivery of the contracted service;- Start-up times, reliability and availability;- Resilience of supply (run continuously for ≥ 3 days);- Auxiliary Single Line Diagram.
Provider Response	

1.2.4 BS Operation

Requirement	The full F2 Report submitted by the tenderer shall include, backed up with physical, simulated and/or written evidence, the details around how will the BS Service be delivered.
Contents	<ul style="list-style-type: none">- Conceptual design, control philosophy, supporting study work and any physical testing requirements to confirm capability;- Control Room and Plant staffing summary and review to achieve the 24h availability of the Service;- System's resilience review noting Telecommunication and system's resilience to a blackout event, and their physical location.
Provider Response	

1.2.5 BS Equipment Schedules (Existing and New)

Requirement	The full F2 Report submitted by the tenderer shall include, backed up with physical, simulated and/or written evidence, the details around the works / physical adaptations / equipment / assessments needed to deliver the BS Service.
Contents	<ul style="list-style-type: none">- Existing to include assessment of fitness for purpose and any modifications required;- New to include general specifications and scope;- Civil installations required;- Balance of Plant General Arrangements;- Single Line Diagrams. <p>Typically includes Auxiliary generation and starting equipment, electrical interconnections, fuel system, Main and Aux control systems, protection – energising and synchronising systems.</p>
Provider Response	

1.3 Implementation Strategy

Requirement	To include an implementation strategy in the F2 report.
Contents	<ul style="list-style-type: none">- Build/Install programme plan, including the steps and timelines for the following<ul style="list-style-type: none">• Consents• Purchasing• Commissioning• Outage requirements- Consents - Please explain what will be required, and how the provider will ensure that at the time of F2 report submission, the provider will confident that any necessary consents or permits will be in place in order to achieve the delivery timeline.- Operation and Maintenance Strategy- Risks
Provider Response	

1.4 Commercial Offer for BS Service

Requirement	The F2 Report shall include a full and detailed breakdown of all costs included in the commercial offer for the provision of the BS Service. NGESO reserves the right to employ consultants to evaluate the designs and cost structures as part of the tender, and may provide pricing schedule templates later in the process (but before commencement of F2 studies). Areas expected to be covered:
Contents	<ul style="list-style-type: none">- Project Development;- Main Equipment;- Construction;- Monthly Availability Fee;- Service Readiness strategy (Commercially viable runs, preparedness capability, etc.).
Provider Response	

1.5 Cost of Delivering F2 report

Requirement	NGESO will contribute up to £150,000 to cover costs associated with F2 Report. Providers are expected to minimise these costs to reduce the impact on the end consumer, and will only be reimbursed for costs once invoices and supporting evidence of costs incurred are received and validated by NGESO. Costs will be reimbursable following closure of the F2 assessment period, and following satisfactory responses to all clarifications being issued by NGESO during the assessment period.
Contents	Please provide detailed breakdown of costs of delivering the F2 Report.
Provider Response	

1.6 List of Appendices / Attachments

Please list document titles of any associated attachments.

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Faraday House, Warwick Technology Park,
Gallows Hill, Warwick, CV346DA

nationalgrideso.com

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